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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,280	10/16/2003	Alex Breytman	1400-2 (1499)	8976

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EXAMINER
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LEE, SEUNG H

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/687,280

Applicant(s)

BREYTMAN ET AL.

Examiner

Seung H. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 is/are allowed.
- 6) ☒ Claim(s) 1-15, 18-20 and 22 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/16/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 5-13, 15, 18- 20, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Shreesha (US 5,798,516).

Re claims 1, 13, 18, 22: Shreesha teaches that a hand-help scanning device (400) and method comprising a image sensor or a detector (420) for producing signal corresponding to optical information representative of a target image such as barcodes (456 or 458), a lens assembly or optics (424) for focusing the target image on the detector (420), a finger-activated trigger (412) and the linkage member between the trigger and the optics (617 of a figure 9) together serving as a piezo-actuator assembly for moving the optics to focus the target image on the detector (see Figs. 2-9; col. 2, line 51-col. 5, line 47).

Re claim 2: The optics (412) of the scanner is mounted/attached on the support (not shown) for holding the optics that is movable by the trigger.

Re claims 5, 8, and 9: Shreesha teaches the detector (420) of the scanning device is a CCD detector for receiving/detecting corresponding an array pixel information of the barcode by frames of the images (i.e., two-dimensional pixel information) (see col. 4, lines 24-65).

Re claim 6 and 7: Shreesha teaches that a trigger (412) serving as a piezo actuator, the end of the linkage member that connected to the optics for causing the movement of the optics serves as a tip which extends from a distal end of the trigger and a spring (411) positioned adjacent a proximal end of the trigger as shown in figure 7.

Re claim 10: Shreesha teaches the scanning device comprising the piezo actuator assembly (i.e., the finger activated trigger and the linkage linking the optics and the trigger) is positioned adjacent to the optics (see figs. 7 and 9).

Re claims 11 and 20: Shreesha teaches the scanning device comprising a processing electronic (414 or 62) for processing and decoding wherein the signal processor of the scanning device is processing and decoding an electronic image of the barcode produced by the detector (420 or 60), the processing and decoding of the capture barcode image is executed by a program or a software (not shown) that is a series of instructions for executing program/software (see figs. 2 and 7; col. 3, lines 9-17).

Re claim 12: The trigger and the linkage member automatically move the optics when the trigger is manually activated in which results in focusing of the image on the detector (see col. 4, lines 24-54; col. 5, lines 10-47).

Re claim 15: Shreesha teaches the scanning device comprising a light source (440) for illuminating the barcode (see col. 4, line 66- col. 5, line 8).

Re claim 19: Shreesha teaches a method of determining/calculating a distance between the detector and the target image (see figs. 3 and 4; col. 3, lines 25-63).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shreesha in view of Koenck et al. (US 5,576,529, cited by applicant)(hereinafter referred to as 'Koenck').

The teachings of Shreesha have been discussed above.

Although, Shreesha teaches the scanning device having a trigger for focusing the target image such as the barcode by moving the lens guidance assembly, he fails to particularly teach or fairly suggest that the lens guidance assembly comprises a pair of living hinges and a cylindrical bushing.

However, Koenck teaches a portable scanning device comprises a lens barrel (90) serving as a cylindrical bushing wherein the lens barrel is movable by a worm gear drive (102) and a bearing (111) for a shaft of worm gear serving as a pair of hinges (see Figs. 1-3; col. 7, line 29- col. 8, line 51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Koenck to the teachings of Shreesha in order to protect the lens by locating the lens within the barrel wherein such

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modification would also prevent the lens from the scratches and dust that might be prevent clear transparent of light beam therethrough. Moreover, such modification (i.e., moving the barrel using the a worm gear drive and a bearing for a shaft of worm gear) would provide precise movement of the barrel for focusing the images.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shreesha in view of Carlson et al. (US 6,837,431)(hereinafter referred to as 'Carlson').

The teachings of Shreesha have been discussed above.

Although, Shreesha teaches the scanning device having a trigger for focusing the target image such as the barcode by moving the optics, he fails to particularly teach or fairly suggest that the scanning device is configured to be less than two cubic inches in volume.

However, Carlson teaches a miniature imager for reading barcodes comprises a plurality of components such as a lens (240), an imager chip (220), etc. wherein the imager has a form factor of the SE900 which result the volume of 0.20 cubic inches (see Figs. 2A-2C; col. 4, line 17-col. 5, line 26; col. 9, lines 13-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Carlson to the teachings of Shreesha in order to provide an improved comparability wherein the scanning device manufactured according to the industry form factor can be used other imaging device that is also manufactured according to the industry form factor such as SE900.

***Allowable Subject Matter***

6. Claim 21 is allowed.
7. Claims 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance and indication of allowable subject matter:

Although, Shreesha and Nelson teaches a portable scanning device has a function of focusing the target image onto the detector such as CCD for capturing the barcode image and decoding captured barcode image by the actuator. However, Shreesha and Nelson taken alone or in combination with other reference fail to particularly teach that the scanning device comprises two piezo actuator assemblies in opposing direction and in contact with a longitudinal flange extending from the lens assembly and the method of focusing the image with the imaging system comprises correlating the determined distance to the target image to a position of lens guidance assembly and determining a current position of a lens assembly with respect to the position of the lens guidance assembly, and determining an amount of distance that the lens assembly need to be moved to focus the target image on the image sensor as set forth in the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nelson et al. (US 6,688,525) discloses a portable device for reading coded pattern,

Chaleff et al. (US 6,628,445) discloses a scanning system comprising a linear array sensor.

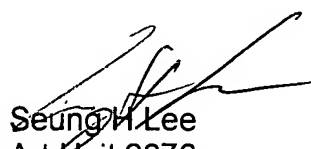
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seung H. Lee whose telephone number is (571) 272-2401. The examiner can normally be reached on Monday-Friday, 7:30 AM- 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Seung H. Lee  
Art Unit 2876  
May 11, 2005